Remarks:

Applicant appreciates the Examiner's prior art search and careful examination of this application.

Claims 1-9 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Kaufman Patent No. 3,398,222.

Kaufman discloses a method for making a plastic and rubber wheel by injection molding. A plastic wheel 10 with circular beads 17, 18 is inserted into a mold housing 19 (bottom housing), 22 (upper housing or cover) which defines a cavity 26 which is then filled (injected) with rubber 28 (See Figure 5).

Referring particularly to Column 2, beginning on line 56, when the mold cover 22 presses against the mold bottom housing 19, the beads 17, 18 are crushed, and this crushing serves the dual function of holding the part securely in place within the mold while the rubber is injected into the mold (Column 2, lines 63 - 66) and ensuring that the cavity 26 is sealed at the peripheral edges of the plastic body so that the rubber cannot flow over the faces of the plastic body (Column 2, lines 67- 69).

From the above description it is clear that, in Kaufman:

1- The beads are crushed between the mold housings 19, 22 and the product being coated, not between two parts of a composite product that is being coated.

2- The beads serve the purpose of stanching the flow of rubber, which is the liquid portion being injected to at least partially cover the core (the plastic body).

3- The beads serve the further purpose of securely holding the plastic body in place within the mold while the rubber is injected. Since the beads are crushed by the mold housings, these mold housings must remain in contact with the beads during the entire rubber injection and cooling process, lest the rubber leak past the beads and flow over the faces of the plastic body.

The admitted prior art as shown in Figures 1-6 teaches a continuous process in which a product is coated by passing it through an extrusion die. The product in the prior art was wrapped with a non-hygroscopic material to avoid problems of poor adhesion or blistering of the coating. This required several steps, making it time and labor intensive and expensive. There was no channel defined by the core, and there was no insert in the core.

Claim 1 as currently amended is as follows:

A process for making a composite profile, including at least one core piece and one insert piece, each having a top surface and a bottom surface, and a length extending from a first end to a second end, and each having substantially the same profile from its first end to its second end, wherein said core piece defines a first channel sized to receive said insert piece, said channel extending lengthwise from said first end to said second end, comprising the steps of:

providing a crush rib between the bottom surface of the insert piece and the channel; and

pressing said insert piece into said first channel to deform the crush rib until the top surfaces of the insert and the core are aligned.

It would not be obvious to combine the teachings of the admitted prior art and Kaufman to make the invention recited in claim 1. Claim 1 requires that there be a core piece and an insert piece, each piece having substantially the same profile from its first end to its second end, with the core piece having a lengthwise channel into which the insert piece fits, with a crush rib between the core and the insert. Neither the admitted prior art nor Kaufman teaches or suggests such an arrangement. While the admitted prior art provides a composite with the same profile along its length, it does not teach the use of a channel and insert nor the use of a crush rib between the channel and the insert. Since Kaufman is an injection molding process for molding a tread on a wheel, it does not teach the use of a core and insert having substantially the same profile along its length. Kaufman teaches the use of a circular crush rib to provide a seal between the mold and the insert onto which plastic will be molded. A lengthwise crush rib as claimed here would not provide such a seal. Kaufman has no teaching to suggest modifying the admitted prior art design to create a channel and an insert and a crush rib between the channel and insert in that product. Similarly, the admitted prior art does not teach modifying Kaufman to

make its profile the same along its length. Therefore, this claim recites an invention that is both novel and unobvious in view of the prior art.

Claim 2 as currently amended is as follows:

A process for making a composite profile, including at least one core piece and one insert piece, each having a top surface and a bottom surface, and a first end and an opposite second end, wherein said core piece defines a first channel sized to receive said insert piece, comprising the steps of:

providing a crush rib between the bottom surface of the insert piece and the channel;

pressing said insert piece into said first channel to deform the crush rib until the top surfaces of the insert and the core are aligned, thereby forming a core and insert assembly; and

passing the core and insert assembly through an extrusion die to apply a coating.

While the Kaufman reference does use crush ribs, they are used in an entirely different environment. The crush ribs in Kaufman are located between the mold and the product to be coated, not between two parts of a composite piece to be sent through an extrusion die and coated. The crush ribs of Kaufman serve to provide an interference fit between the mold and the plastic part, so the part does not move during the molding process, and the ribs function as a seal, to prevent the liquid plastic from traveling beyond the crush ribs during the molding process. Neither of these functions is helpful for a part that is sent through an extrusion die, where it is not desirable for the die to grip the product. In extrusion molding, it would not be possible to use crush ribs to hold the product inside the mold and to seal the path of the coating as in Kaufman, because the product does not stay fixed within a mold as in Kaufman but rather is continuously moving through the extrusion die.

The only suggestion of Kaufman that could be applied to the prior art of Figures 1-6 would be to add a crush rib to the outer surface of one or more of the wrapping pieces prior to coating the wrapping pieces with plastic. However, this would not be desirable to a person of ordinary skill in the art, and it would not make the claimed invention. Therefore, claim 2 recites an invention that is novel and unobvious in view of the prior art.

Claim 3 depends from claim 2 and adds that the coating is a thermoplastic.

Claim 4 depends from claim 2 and includes the additional steps of providing a wider gap between the insert and the core near the top than further into the core and applying coating into that wider gap. By providing a wider gap near the top and applying coating into that wider gap, a plug is formed that helps prevent the insert from separating from the core. This is not taught or suggested by the admitted prior art or Kaufman.

Claim 5 depends from claim 4 and adds that the wider gap is formed by providing a recessed shoulder on the insert.

Claim 6 depends from claim 4 and adds that the wider gap is formed by making the channel wider at the top edge.

Claim 7 depends from claim 2 and adds that the insert has a recessed shoulder forming a gap that is filled with the coating.

Claim 8 depends from claim 2 and adds that the leg of the channel widens adjacent the top surface to define a gap which is filled with the coating.

Claim 9 depends from claim 1 and adds the step of applying adhesive between the core and the insert.

Claims 10 and 11 have been put into independent form, which puts claims 10-13 in condition for allowance, as stated in the Office Action.

Since all the claims now recite an invention that is both new and unobvious in view of the prior art, Applicant respectfully requests allowance of all the claims now pending in the present application. If there are any remaining problems with this application, Applicant's attorney would appreciate a call from the Examiner to help expedite their resolution.

Respectfully submitted,

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